

1 February 2018

Ms. Chris Kramer, Acting Director
Iowa Department of Cultural Affairs
600 East Locust Street
Des Moines, IA 50319

Re: Deferred Maintenance Cost Prioritization

Ms. Kramer:

Our project team has been asked to provide our insights into the prioritization of planned work to the State Historical Building over the next few fiscal years.

This effort stems from a 2016 Legislative Services Agency (LSA) request to provide a cost opinion on a minor renovation scenario for the State Historical Building that would replace the roof and skylights, correct storm water leakage, and replace the HVAC system. This list of priorities builds upon that original request to form a strategic framework to remedy the existing deficiencies present in the facility providing solutions in both a financially and functionally logical sequence.

The following is a priority ranking and description of the scope of work that is proposed to be addressed beginning with the current, previously funded Priority 1.

Priority 1:

1. **Storm Water Leakage.** Existing roof drains and associated storm water piping are leaking over museum-sensitive areas including the galleries, archives, and collections storage areas. In conjunction with the selective reroofing, deficient roof drains are slated to be replaced, along with associated piping. Storm water piping that cannot be relocated out of sensitive areas will have a secondary leak containment and detection system to mitigate risk to these areas.

Priority 2:

1. **Skylight Replacement.** The numerous skylights in the building have leaked extensively since the building opened 30 years ago. The skylights cannot be repaired and require full replacement. As light is generally still desired and required in these areas, a change to window walls conforming to museum standards in lieu of new skylights is recommended. This will result in a change to the building appearance.
2. **Roof Replacement.** The roof is original to the building and beyond its life expectancy. There are several factors which contribute to a high replacement cost for the existing roof. A large portion of the roof is terrace area with planters and pavers, and the existing stepped design of the building results in a larger than typical amount of surface roof area and perimeter joints/terminations. All roofs will receive additional insulation and new roofing membranes. Terraced areas will be reinstalled with existing roof pavers as appropriate and applicable.
3. **Renovate and Repair Lower Level Collection & Archive Storage Areas:** These sensitive areas will be augmented to bring the storage environments to within museum standards to minimize both humidity and temperature fluctuations in these areas. Concrete walls, ceilings, and floors will be sealed to mitigate 'dusting' that is currently damaging collections.

Priority 3:

1. **Building Envelope.** The existing building walls and roof are terribly inefficient in terms of energy performance and vapor transfer mitigation. These elements are not constructed to museum standards or to the current building standards. The walls and roofs are severely under-insulated.

These same walls and roofs lack any type of vapor mitigation assembly. As such, the existing granite cladding panels have been exposed to both trapped water and water vapor over much of their life and are currently deteriorating at an accelerated rate. The proposed scope of work under this priority is to remove the granite cladding panels, install a building membrane to mitigate both water intrusion and vapor transmission, install insulation to meet current museum standards, and provide a new metal panel cladding system and associated backup fixing system. These modifications will bring the building envelope to current State and museum standards and ready the building appropriately for modifications to the heating and cooling systems proposed for Priority 4.

2. **Collections Storage Infrastructure-Artifacts & Archives Compact Storage:** Compact storage systems have exceeded their useful life and require replacement. This scope of work includes compact storage replacement as well as collections relocation materials and labor, racking storage, and temporary build-outs to protect collections.
3. **Museum Program.** Prioritizing of items that could make a big impact on user experience for the dollars spent. This would focus on upgrades to the educational spaces, museum, research center, visitor experience, and/or lobby.

Priority 4:

1. **Update Building HVAC and Controls Systems.** The current building HVAC system was never designed to provide museum-quality environmental control. Combined with a deficient building envelope, the HVAC system has been working overtime over the last 30 years trying to—but never succeeding to—modulate the building’s environment and keep it within museum-required standards for temperature and humidity. Much of the current equipment has not only exceeded its anticipated life, it is obsolete in terms of modern HVAC systems. The proposed new system will bring the building up to current museum standards and practice.
2. **Museum Program.** Prioritizing of items that could make a big impact on user experience for the dollars spent. This would focus on upgrades to the educational spaces, museum, research center, visitor experience, and/or lobby.

The anticipated cost for the phased renovation scenario and the work scope described in Priorities 1-4 is **\$46.2 million**. This includes project costs, fees, escalations, and appropriate contingencies.

The issues facing the State Historical Building are very complex. There is no easy, low-cost solution. Unfortunately, the existing building was not built to museum standards. The building has numerous deficiencies that require major interventions to correct. The above list should be considered as a prioritized list of the most pressing deficiencies of the building.

The design team, along with DAS and DCA, has worked diligently to find the best possible solution to minimize expenditure and maximize functional performance and return on investment. For this reason, we do not recommend a solution that only partially solves building issues, while not addressing museum improvements or ongoing maintenance costs.

Thank you for your time and consideration.



Channing Swanson AIA
Principal, Neumann Monson Architects